

REMARKS

The Office action of November 13, 2008, has been received and its contents, particularly the Examiner's detailed consideration of the substantive aspects of the claims and the prior art, have been noted with appreciation.

In this Continued Examination proceeding, the previously submitted claims have been replaced by a set of new process claims 37 – 47 and apparatus claims 48 – 52, and it is respectfully submitted that the subject matter of the newly submitted claims is not shown in or made obvious by Inoue et al and/or Fabrinski et al, taken singly or in combination with each other, and that, for the reasons set forth below, none of the claims now appearing herein are rejectable under 35 U. S. C. 102(b) or 35 U. S. C. 103(a) or any other provision of the Title 35. It is, moreover, submitted that the subject matter of the claims is fully supported by the original disclosure.

The newly submitted independent claims 37 and 48 reflect that the invention involves the calibration of the apparatus as a whole, including the furnace or oven, coolers, fluid pipes, valves, etc., rather than the calibration of the detector as such. The claims also reflect that the calibration gas is mixed into the carrier gas which usually carries a liquid sample to the furnace and the combustion products from the furnace to the IR detector. Support for this is found on the passages beginning on page 4, line 3, and page 6, line 2, of the specification, and how the calibration works is described on page 6, lines 4 – 11.

Moreover, the process claims bring out that what is involved is a batch process, i.e., a discontinuous process wherein a certain measurement regarding a specific sample is made after a sample has been evaporated and burned.

Further, as is brought out in some of the dependent claims, the batch process is carried out in such a way that the measuring steps and calibration are alternating steps, as explained in the penultimate paragraph of the specification. Other dependent claims deal with the fact that the invention is particularly applicable in the field of pure water analysis, as set forth on page 1, fourth paragraph of the specification and again on page 2, second paragraph to page 3, second paragraph, as well as in the paragraph bridging pages 3 and 4. Such pure water analysis is not mentioned in the prior art relied on by the Examiner.

Turning to the Examiner's comments pertaining to the prior art and first to Fabrinski, it appears that the basic principle on which that disclosure is based differs from that on which the claimed invention is based. The latter deals with a batch process, i.e., a discontinuous process in which a certain measurement regarding a specific sample is made after the sample has been burned and evaporated, whereas the Fabrinski method is an essentially continuous process which is carried out in two channels, namely, a sample channel in which the liquid part of a separated sample is analyzed and a compensator channel in which the dried gaseous part of the sample is analyzed. The basic teaching of Fabrinski, therefore, is applicable only within the framework of a continuous process.

Moreover, in Fabrinski, the feeding or feeding-back of a gas is mentioned under different aspects, and mixing these aspects is not something that can be considered to be obvious to a person skilled in the art. Specifically, one of the aspects in Fabrinski is feeding back the carbon dioxide from the comparison cuvette into the liquid sample, to become subject to the combustion in the furnace together with the liquid sample. In Fabrinski, carbon dioxide must be fed so as to carry out the specific method of determining TOC for otherwise part of the total carbon content, particularly the highly volatile components, would be lost and the result of the measurement would be incorrect. Actually, this is not relevant with respect to the calibration and calibration gas mentioned, for example, in claim 2 of Fabrinski, and indicates that what is done, exclusively, is the calibration of the gas analyzer, here the IR detector. The calibration is carried out to zero and at a predetermined concentration. Thus, whatever calibration is done, it is clearly made with liquid standards, see, for example, claim 6 and column 12, second to fourth paragraphs of the Fabrinski specification.

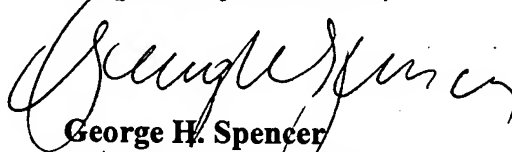
Turning next to Inoue, there appears no mention of periodically alternating the measuring and calibration steps, nor is there any mention of pure water analysis. Contrary to the basic teaching of the present invention, the high purity air mentioned in Inoue is injected into the liquid sample for the purpose of purging

organic compounds from the sample. It is clear, therefore, that the air is not used as a calibration gas but as a carrier gas, which has long been known in conventional TOC analyzers and other devices for determining water constituents.

Finally, as Inoue is not involved with any calibration, it is not apparent why it would be obvious to combine features shown in that patent with features shown in Fabrinski.

In summary, it is submitted that the subject matter of the claims now appearing in this application is neither shown in nor made obvious by the prior art relied on by the Examiner in the rejection of the prior claims, and it is respectfully requested, therefore, that the Examiner allow the newly submitted claims 37 - 52.

Respectfully submitted,



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